

OPTICAL RECORDING MEDIUM AND OPTICAL DISK DEVICE

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Abstract of JP11031337

PROBLEM TO BE SOLVED: To suppress flawing on a transparent cover layer to be irradiated with light and the failure thereof, to assure reliability, to enable the dealing with higher NA and to make a capacity higher.

SOLUTION: The one main surface side of a recording layer is provided with the transparent cover layer having a Young's modulus of ≥ 70 (GPa) and the recording and/or reproducing of information is executed by using an objective lens having NA of ≥ 0.7 . The thickness of the transparent cover layer is specified to ≤ 150 (μm). The transparent cover layer is formed of a two- layered structure and the Young's modulus of the layer which is a front surface side is specified to ≥ 150 (GPa). The thickness of the layer is specified to 2 to 230 (nm). The front surface side of the transparent cover layer is formed of a material contg. at least one kind among C100-x Hx (1(atomic.%) $\leq x \leq 45$ (atomic.%)), Si₃N₄, MgF₂, Al₂O₃ and SiO₂. The thickness (t) of the transparent cover layer of the region of an information signal part 11 is specified to t=3 to 177 (μm) and the irregular thickness Δt of the transparent cover layer is so determined that the relation $\Delta t \leq \pm 5.26$ (λ / NA) (μm) holds between NA and a wavelength λ .

